IN THE CLAIMS:

Please amend claim 3 as follows:

3. (Amended) Detector according to claim 1, in which the mobility of the electric charges in the polymer is greater than 10^{-6} $cm^2/V/sec$.

Please amend claim 5 as follows:

5. (Amended) Detector according to claim 1, in which the guest particles are capable of producing electric charges by direct interaction with the incident radiation or by interaction with other electric charges produced by interaction of this incident radiation with the host matrix.

Please amend claim 6 as follows:

6. (Amended) Detector according to claim 1, in which the guest particles are chosen from the group comprising grains of at least one semiconductor powder and semiconducting colloidal particles.

Please amend claim 7 as follows:

7. (Amended) Detector according to claim 1, in which the guest particles have a mean atomic number higher than 14, an average density greater than 2 $gm.cm^{-3}$ and an average relative permittivity greater than 10.

Please amend claim 8 as follows:

8. (Amended) Detector according to claim 1, in which the guest particles are coated in a material preventing agglomeration of these guest particles.

Please amend claim 9 as follows:

9. (Amended) Detector according to claim 1, in which the first material is electrically conductive, the tracks (22) are electrically insulated from the sheets (4) and the means for creating the electric field furthermore comprise means (26) for applying an electric voltage between the tracks and the sheets, this voltage being able to provoke collection of charges by the tracks.

Please amend claim 10 as follows:

10. (Amended) Detector according to claim 1, in which each group of tracks (22) is contained in the layer (6) with which it is associated.

Please amend claim 12 as follows:

12. (Amended) Detector according to claim 1, in which the sheets (4) are electrically insulating, an electrically conductive layer (46) is interposed between each layer of composite semiconducting material and the sheet associated with it and the means of creation of the electric field furthermore comprise means (26) for application of an electric

voltage between the tracks (22) and the electrically conductive layers (46), this voltage being capable of provoking the collection of charges by the tracks.

PLEASE ADD THE FOLLOWING CLAIMS:

15. Detector according to claim 2, in which the mobility of the electric charges in the polymer is greater than 10^{-6} $cm^2/V/sec$.

16. Detector according to claim 4, in which the guest particles are capable of producing electric charges by direct interaction with the incident radiation or by interaction with other electric charges produced by interaction of this incident radiation with the host matrix.

17. Detector according to claim 5, in which the guest particles are chosen from the group comprising grains of at least one semiconductor powder and semiconducting colloidal particles.

18. Detector according to claim 6, in which the guest particles have a mean atomic number higher than 14, an average density greater than 2 $gm.cm^{-3}$ and an average relative permittivity greater than 10.

19. Detector according to claim 7, in which the guest particles are coated in a material preventing agglomeration of these guest particles.

20. Detector according to claim 8, in which the first material is electrically conductive, the tracks (22) are electrically insulated from the sheets (4) and the means for creating the electric field furthermore comprise means (26) for applying an electric voltage between the tracks and the sheets, this voltage being able to provoke collection of charges by the tracks.

21. Detector according to claim 8, in which each group of tracks (22) is contained in the layer (6) with which it is associated.

22. Detector according to claim 8, in which the sheets (4) are electrically insulating, an electrically conductive layer (46) is interposed between each layer of composite semiconducting material and the sheet associated with it and the means of creation of the electric field furthermore comprise means (26) for application of an electric voltage between the tracks (22) and the electrically conductive layers (46), this voltage being capable of provoking the collection of charges by the tracks.